The Commonwealth of Massachusetts

DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

July 14, 2006

D.T.E. 06-38-A

Rulemaking by the Department of Telecommunications and Energy on its own motion to amend 220 C.M.R. §§ 151.00 et seq.: Rail Fixed Guideway System: Safety System Program Standard.

ORDER ADOPTING FINAL REGULATIONS

I. INTRODUCTION

On April 28, 2006, the Department of Telecommunications and Energy ("Department"), pursuant to G.L. c. 30A, § 2, issued an Order adopting as emergency regulations 220 C.M.R. §§ 151.00 et seq.: Rail Fixed Guideway System: System Safety/Security Program Standard. Rulemaking by the Department of Telecommunications and Energy on its own motion to amend 220 C.M.R. §§ 151.00 et seq.: Rail Fixed Guideway System: Safety System Program Standard, D.T.E. 06-38 (2006). The Department's regulations at 220 C.M.R. §§ 151.00 et seq. establish the standard for Department oversight of the Massachusetts Bay Transportation Authority ("MBTA") to implement the provisions of 49 U.S.C. 5330 and 49 C.F.R. 659.

In 2005, the Federal Transit Administration ("FTA") revised 49 C.F.R. 659: Rail Fixed Guideway Systems; State Safety Oversight.[1] To comply with the revisions to 49 C.F.R. 659, the Department promulgated revised emergency regulations at 220 C.M.R. §§ 151.00 et seq.. The emergency regulations are designated as 220 C.M.R. §§ 151.00 et seq. and became effective on April 28, 2006 upon filing with the Secretary of the Commonwealth.

Pursuant to G.L. c. 30A, § 2, an Order adopting the emergency regulations as final must be issued before their expiration.[2] In the Order opening this rulemaking, the Department solicited comment on the on the emergency regulations during a comment period from May 4,

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[1] Department of Transportation, Federal Transit Administration, 49 CFR Part 659, Rail Fixed Guideway Systems; State Safety Oversight; Final Rule, 70 Fed. Reg. 22562 (April 29, 2005).

[2] Emergency regulations remain in effect for three months. G.L. c. 30A, § 2; 220 C.M.R. § 2.05(4).

2006 through June 26, 2006. Comments were received from the FTA on June 18, 2006. No members of the public commented at a public hearing held on June 28, 2006. With this Order, the Department adopts the emergency regulations as permanent.

II. FINAL REGULATIONS

The Commonwealth of Massachusetts has one rail fixed guideway system (i.e., the "subway"), operated by the MBTA. The Department exercises oversight of the safety of equipment and operations of the MBTA pursuant to G.L. c. 161A, § 3(I).[3] In the discharge of this responsibility and in compliance with FTA requirements, the Department promulgated 220 C.M.R. §§ 151.00 et seq., the System Safety Program Standard ("SSPS"), consisting of regulations for hazardous conditions safety, personal security oversight, and track inspection and maintenance. See Investigation by the Department of Public Utilities to Propose a Plan for State Safety Oversight of the Massachusetts Bay Transportation Authority's Rail Fixed Guideway System, D.P.U. 96-116 (1997), Investigation by the Department of Telecommunications and Energy to Amend 220 C.M.R. 151.00 et seq., D.T.E. 98-11 (1998), Investigation by the Department of Telecommunications and Energy to Promulgate 220 C.M.R. 151.08 and 220 C.M.R. 151.09, D.T.E. 98-75 (1998), Investigation by the Department of Telecommunications and Energy to Amend 220 C.M.R. 151.00 et seq.,

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[3] The Intermodel Surface Transportation Efficiency Act of 1991 ("ISTEA"), Pub. L. No. 102-240, codified at 49 U.S.C. 5330 (1994) through the promulgation of FTA regulations at 49 C.F.R. 659: Rail Fixed Guideway Systems; State Safety Oversight, requires states that operate a rail fixed guideway system that is not regulated by the Federal Railroad Administration ("FRA") to designate a state agency to be responsible for overseeing the rail fixed guideway system's safety and security plans.

D.T.E. 00-38 (2000), Rulemaking by the Department of Telecommunications and Energy to Promulgate 220 C.M.R. 151.00 et seq., D.T.E. 01-37 (2001), Petition by the Massachusetts Bay Transportation Authority to Commence a Rulemaking to Amend 220 C.M.R. 151.00 et seq., D.T.E. 03-42 (2004). The SSPS established the criteria the MBTA[4] used to create a System Safety Program Plan ("SSPP").

To comply with the FTA's revisions to 49 C.F.R. 659, on April 28, 2006, the Department promulgated revised regulations on an emergency basis at 220 C.M.R. §§ 151.00 et seq.. In its comments, the FTA requested that the Department make certain changes to the emergency regulations before they become final in order to ensure compliance with 49 U.S.C. 5330 and 49 C.F.R. 659. First, the FTA recommends that the Department's regulations at 220 C.M.R. § 151.01 be amended to include a description of the process used for the development, review, adoption, modification and/or update of the SSPS. Second, the FTA recommends that the Department's regulations at 220 C.M.R. § 151.09 be amended to add to the accident notification threshold the circumstance of a collision at grade crossing. Finally, the FTA recommends that the Department's regulations at 220 C.M.R. § 151.07 be amended to clarify that the Department will monitor and track each corrective action plan through completion.

The Department continuously reviews its policies and procedures designed to protect public safety pursuant to the general supervisory authority delegated to it by the General Court. See e.g., G.L. c. 161A, §3(i). When they were originally promulgated in 1997, the

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[4] 220 C.M.R. §§ 150.00 et seq., Railroad Safety Regulations, is applicable to each railroad company operating within the Commonwealth. 220 C.M.R. §§ 151.00 et seq. contains regulations specifically applicable to the MBTA.

regulations were found to be in the public interest, as they specify and set out a "systemized procedure for identifying and rectifying potential accident causing situations, thereby increasing the safety of the traveling public." D.P.U. 96-116, at 3. The changes suggested by the FTA are minor, but necessary to ensure compliance with 49 U.S.C. 5330 and 49 C.F.R. 659. These regulations, with the modifications described above, will further enhance the safety of the traveling public and, therefore, continue to be in the public interest. Accordingly, the Department adopts as final regulations 220 C.M.R. §§ 151.00 et seq., entitled Rail Fixed Guideway System: System Safety/Security Program Standard, attached hereto as Exhibit A.

Review of these regulations may be had by a petition for declaratory relief in accordance with G.L. c. 30A, § 7 and c. 231A, § 2. Limitations on the scope of review are set forth in Thomas v. Commissioner of Division of Medical Assistance, 425 Mass 438, 746 (1997). See also G.L. c. 231A, § 9 (on construction of the review remedy).

III. ORDER

Accordingly, after notice, hearing, and consideration, it is:

ORDERED: That the regulations attached hereto and designated as 220 C.M.R. §§ 151.00 et seq. are hereby ADOPTED; and it is

FURTHER ORDERED: that the Secretary of the Department will transmit the revised regulations, attached hereto, to the Secretary of the Commonwealth for publication in the next number of the Massachusetts Register for inclusion in the Code of Massachusetts Regulations; and it is

FURTHER ORDERED: that these regulations shall be effective upon publication in the Massachusetts Register.

By Order of the Department,

/s/

Judith F. Judson, Chairman

/s/

James Connelly, Commissioner

/s/

W. Robert Keating, Commissioner

/s/

Brian Paul Golden, Commissioner

ATTACHMENT

220 CMR 151.00: RAIL FIXED GUIDEWAY SYSTEM: SYSTEM SAFETY/SECURITY PROGRAM STANDARD

Section

151.01: Purpose and Scope.

(1) 220 CMR 151.00 *et seq.* establishes the standard of the Commonwealth of Massachusetts oversight required to implement the provisions of 49 U.S.C. 5330, and Title 49 of the Code of Federal Regulations, Part 659, Rail Fixed Guideway Systems, State Safety Oversight ("Part 659").

(2) 220 CMR 151.00 is applicable to the Massachusetts Bay Transportation Authority ("Transportation Authority"), the transit agency operating rail fixed guideway systems in the Commonwealth of Massachusetts.

(3) The Department of Telecommunications and Energy ("Department") exercises jurisdiction over safety of equipment and operations of the Transportation Authority pursuant to M.G.L. c. 161A, § 3(i).

(4) Pursuant to Part 659, the Department is responsible for establishing standards for rail safety and security practices and procedures to be used by the Transportation Authority. In addition, the Department must oversee the execution of these practices and procedures to ensure compliance with the provisions of Part 659.

(5) The Department and the Transportation Authority shall meet quarterly, during the months of January, April, July, and October, to discuss safety and security issues.

(6) The Transportation Authority shall transmit to the Department a monthly Safety Department Multi-mode Review.

(7) Where revisions are necessary to the 220 CMR 151.00, System Safety/Security Program Standard, the Department will conduct a rulemaking proceeding, in accordance with M.G.L. c. 30A §§ 1 through 6A, 950 CMR 20.00 and 220 CMR 2.00, to amend 220 CMR 151.00. The Department will submit the amended System Safety/Security Program Standard to the Transportation Authority within 30 days of Department promulgation. The Transportation Authority must immediately acknowledge receipt of the amended System Safety/Security Program Standard in writing and provide a schedule for implementation in its System Safety Program Plan and/or System Security Plan within 60 days thereof.

151.02: Definitions.

Contractor means an entity that performs tasks required on behalf of the oversight or rail transit agency. The rail transit agency may not be a contractor for the oversight agency.

Corrective action plan means a plan developed by the rail transit agency that describes the actions the rail transit agency will take to minimize, control, correct, or eliminate hazards, and the schedule for implementing those actions.

FRA means the Federal Railroad Administration, an agency within the U.S. Department of Transportation.

FTA means the Federal Transit Administration, an agency within the U.S. Department of Transportation.

Hazard means any real or potential condition (as defined in the rail transit agency's hazard management process) that can cause injury, illness, or death; damage to or loss of a system, equipment or property; or damage to the environment.

Individual means a passenger; employee; contractor; other rail transit facility worker; pedestrian; trespasser; or any person on rail transit-controlled property.

Investigation means the process used to determine the causal and contributing factors of an accident or hazard, so that actions can be identified to prevent recurrence.

Oversight agency means the entity, other than the rail transit agency, designated by the state to implement Part 659.

Passenger means a person who is on board, boarding, or alighting from a rail transit vehicle for the purpose of travel.

Passenger Operations means the period of time when any aspect of rail transit agency operations are initiated with the intent to carry passengers.

Program Standard means a written document developed and adopted by the oversight agency, that describes the policies, objectives, responsibilities, and procedures used to provide rail transit agency safety and security oversight.

Rail Fixed Guideway System means any light, heavy, or rapid rail system, monorail, inclined plane, funicular, trolley, or automated guideway that:
(1) Is not regulated by the FRA; and
(2) Is included in FTA's calculation of fixed guideway route miles or receives funding under FTA's formula program for urbanized areas (49 U.S.C. 5336); or
(3) Has submitted documentation to FTA indicating its intent to be included in FTA's calculation of fixed guideway route miles to receive funding under FTA's formula program for urbanized areas (49 U.S.C. 5336).

Rail Transit Agency means an entity that operates a rail fixed guideway system.

Rail Transit-controlled Property means property that is used by the rail transit agency and may be owned, leased, or maintained by the rail transit agency.

Rail Transit Vehicle means the rail transit agency's rolling stock including, but not limited to, passenger and maintenance vehicles.

Safety means freedom from harm resulting from unintentional acts or circumstances.

Security means freedom from harm resulting from intentional acts or circumstances.

System Safety Program Plan means a document developed and adopted by the rail transit agency, describing its safety policies, objectives, responsibilities, and procedures.

System Security Plan means a document developed and adopted by the rail transit agency describing its security policies, objectives, responsibilities, and procedures.

151.03: System Safety Program Plan.

(1) The Transportation Authority shall develop and implement a written system safety program plan ("SSPP") that complies with Part 659 and 220 CMR 151.00.

(2) The SSPP shall include:

(a) A policy statement signed by the Transportation Authority's chief executive that endorses the safety program and describes the authority that establishes the SSPP.

(b) A clear definition of the goals and objectives for the safety program and stated management responsibilities to ensure they are achieved.

(c) An overview of the management structure of the Transportation Authority, including:

1. An organization chart;
2. A description of how the safety function is integrated into the rest of the rail transit organization; and
3. Clear identification of the lines of authority used by the Transportation Authority to manage safety issues.

(d) The process used to control changes to the SSPP, including:

1. Specifying an annual assessment of whether the SSPP should be updated; and
2. Required coordination with the Department, including timeframes for submission, revision, and approval.

(e) A description of the specific activities required to implement the system safety program, including:

1. Tasks to be performed by the Transportation Authority safety function, by position and management accountability, specified in matrices and/or narrative format; and
2. Safety-related tasks to be performed by other Transportation Authority departments, by position and management accountability, specified in matrices and/or narrative format.

(f) A description of the process used by the Transportation Authority to implement its hazard management program, including activities for:

1. Hazard identification;
2. Hazard investigation, evaluation and analysis;
3. Hazard control and elimination;

4. Hazard tracking; and

5. Requirements for on-going reporting to the Department relating to hazard management activities and status.

(g) A description of the process used by the Transportation Authority to ensure that safety concerns are addressed in modifications to existing systems, vehicles, and equipment, which do not require formal safety certification but which may have safety impacts.

(h) A description of the safety certification process required by the Transportation Authority to ensure that safety concerns and hazards are adequately addressed prior to the initiation of major projects to extend, rehabilitate, or modify an existing system, or to replace vehicles and equipment.

(i) A description of the process used to collect, maintain, analyze, and distribute safety data, to ensure that the safety function within the Transportation Authority receives the necessary information to support implementation of the system safety program.

(j) A description of the process used by the Transportation Authority to perform accident notification, investigation and reporting, including:

1. Notification thresholds for internal and external organizations;

2. Accident investigation process and references to procedures;

3. The process used to develop, implement, and track corrective actions that address investigation findings;

4. Reporting to internal and external organizations; and

5. Coordination with the Department.

(k) A description of the process used by the Transportation Authority to develop an approved, coordinated schedule for all emergency management program activities, which include:

1. Meetings with external agencies;

2. Emergency planning responsibilities and requirements;

3. Process used to evaluate emergency preparedness, such as annual emergency field exercises;

4. After action reports and implementation of findings;

5. Revision and distribution of emergency response procedures;

6. Familiarization training for public safety organizations; and

7. Employee training.

(l) A description of the process used by the Transportation Authority to ensure that planned and scheduled internal safety reviews are performed to evaluate compliance with the SSPP, including:

1. Identification of departments and functions subject to review;

2. Responsibility for scheduling reviews;

3. Process for conducting reviews, including the development of checklists and procedures and the issuing of findings;

4. Review of reporting requirements;

5. Tracking the status of implemented recommendations; and

6. Coordination with the oversight agency.

(m) A description of the process used by the Transportation Authority to develop, maintain, and ensure compliance with rules and procedures having a safety impact, including:

1. Identification of operating and maintenance rules and procedures subject to review;

2. Techniques used to assess the implementation of operating and maintenance rules and procedures by employees, such as performance testing;

3. Techniques used to assess the effectiveness of supervision relating to the implementation of operating and maintenance rules; and

4. Process for documenting results and incorporating them into the hazard management program.

(n) A description of the process used for facilities and equipment safety inspections, including:

1. Identification of the facilities and equipment subject to regular safety-related inspection and testing;

2. Techniques used to conduct inspections and testing;

3. Inspection schedules and procedures; and

4. Description of how results are entered into the hazard management process.

(o) A description of the maintenance audits and inspections program, including identification of the affected facilities and equipment, maintenance cycles, documentation required, and the process for integrating identified problems into the hazard management process.

(p) A description of the training and certification program for employees and contractors, including:

1. Categories of safety-related work requiring training and certification;

2. A description of the training and certification program for employees and contractors in safety-related positions;

3. Process used to maintain and access employee and contractor training records; and

4. Process used to assess compliance with training and certification requirements.

(q) A description of the configuration management control process, including:

1. The authority to make configuration changes;
2. Process for making changes; and
3. Assurances necessary for formally notifying all involved departments.

(r) A description of the safety program for employees and contractors that incorporates the applicable local, state, and federal requirements, including:

1. Safety requirements that employees and contractors must follow when working on, or in close proximity to, rail transit agency property; and
2. Processes for ensuring the employees and contractors know and follow the requirements.

(s) A description of the hazardous materials program, including the process used to ensure knowledge of and compliance with program requirements.

(t) A description of the drug and alcohol program and the process used to ensure knowledge of and compliance with program requirements.

(u) A description of the measures, controls, and assurances in place to ensure that safety principles, requirements and representatives are included in the rail transit agency's procurement process.

(3) The Transportation Authority shall submit the SSPP to the Department for review and approval prior to its implementation. The SSPP should be submitted in electronic format via email to the Transportation Division Director. Supporting procedures and referenced materials may be submitted in hard copy by fax, mail or in-hand delivery.

(4) The Transportation Authority shall conduct an annual review of the SSPP on or before August 1st of each year and update it as necessary to ensure the SSPP remains current. The Transportation Authority shall submit an updated SSPP, and any accompanying procedures, for Department review and approval on or before September 1st of each year. If no updates are required, the Transportation Authority shall so notify the Department in writing before September 1st of each year.

(5) Should the Transportation Authority update the SSPP outside the annual review cycle, either upon its own initiative or upon the written request of the Department for modifications to the SSPP, the Transportation Authority shall submit a revised SSPP to the Department. The SSPP should be submitted in electronic format via email to the Transportation Division Director within 30 calendar days of the event requiring the

changes. Supporting procedures and referenced materials may be submitted in hard copy by fax, mail or in-hand delivery.

151.04: System Security Plan.

(1) The Transportation Authority shall develop and implement a written system security plan ("SSP") that complies with Part 659 and 220 CMR 151.00, which shall be maintained as a separate document from the SSPP. The Transportation Authority shall not publicly disclose the SSP.

(2) The SSP shall:

(a) Identify the policies, goals, and objectives for the security program endorsed by the Transportation Authority's chief executive.

(b) Document the Transportation Authority's process for managing threats and vulnerabilities during operations, and for major projects, extensions, new vehicles and equipment, including integration with the safety certification process;

(c) Identify controls in place that address the personal security of passengers and employees;

(d) Document the Transportation Authority's process for conducting internal security reviews to evaluate compliance and measure the effectiveness of the SSP; and

(e) Document the Transportation Authority's process for making its SSP and accompanying procedures available to the Department for review and approval.

(3) The Transportation Authority shall submit the SSP to the Department for review and approval prior to its implementation. The SSP should be submitted in electronic format via email to the Transportation Division Director. Supporting procedures and referenced materials may be submitted in hard copy by fax, mail or in-hand delivery.

(4) The Transportation Authority shall conduct an annual review of the SSP on or before February 1st of each year and update it as necessary to ensure the SSP remains current. The Transportation Authority shall submit an updated SSP, and any accompanying procedures, for Department review and approval on or before March 1st of each year. If no updates are required, the Transportation Authority shall so notify the Department in writing before March 1st of each year.

(5) Should the Transportation Authority update the SSP outside the annual review cycle, either upon its own initiative or upon the written request of the Department for

modifications to the SSP, the Transportation Authority shall submit a revised SSP to the Department. The SSP should be submitted in electronic format via email to the Transportation Division Director within 30 calendar days of the event requiring the changes. Supporting procedures and referenced materials may be submitted in hard copy by fax, mail or in-hand delivery.

(6) In submitting the SSP for Department review and approval, the Transportation Authority shall not provide a copy of any security procedures or other security-related materials but will instead make these materials available at its offices for Department review and inspection upon Department request.

151.05: Internal Safety and Security Audits.

(1) The Transportation Authority shall develop and document in its SSPP a process requiring on-going internal safety and security audits over a three-year cycle to evaluate compliance with, and measure the effectiveness of, the SSPP and the SSP.

(2) In its internal safety or security audit, the Transportation Authority shall:

(a) Describe the process used to determine if all identified elements of its SSPP and SSP are performing as intended.

(b) Ensure that all elements of the SSPP and SSP are reviewed in an on-going manner and completed over a three-year cycle.

(c) Use qualified personnel who are not the supervising managers of the activity under review.

(d) Record its audit on a written checklist provided by the Department and entitled "DTE Checklist For Review of Annual Internal Audits."

(e) Submit to the Department any checklists or procedures to be used during the safety portion of the audit.

(f) Not provide a copy of any security procedures or other security-related materials to the Department but will instead make these materials available at its offices for Department review and inspection upon Department request.

(g) Notify the Department in writing of the time and location of an internal audit at least 30 days in advance.

(h) Prepare written report documenting recommendations and any corrective actions identified as result of internal audit.

(3) The Transportation Authority shall file with the Department for review and approval on or before February 15th an annual report documenting the internal audits conducted during the past calendar year and the status of subsequent findings and

corrective actions. The report shall state the results of each audit in terms of the adequacy and effectiveness of the SSPP and the SSP. In filing this report, the Transportation Authority shall not provide a copy of any security-related materials but will instead make them available at its offices for Department review and inspection upon Department request.

(4) Along with the annual report, the Transportation Authority must include a formal letter signed by its general manager certifying the Transportation Authority is in compliance with its SSPP or SSP. If the Transportation Authority's findings indicate noncompliance with its SSPP or SSP, its general manager must identify in the formal letter the nature of the noncompliance and the steps it will take to achieve compliance.

(5) The Department shall observe the Transportation Authority's internal audit activities, in whole or on a sample basis, and will monitor the internal audit program.

151.06: Hazard Management Process.

(1) The Transportation Authority shall incorporate the following process in its SSPP to identify and resolve hazards during operation, including hazards resulting from subsequent system extensions or modifications or operational or environmental changes or hazards discovered during reviews, inspections or investigations.

(2) Hazard Tracking Log. The Transportation Authority shall consolidate all hazard information developed pursuant to its various methodologies for identifying and assessing hazards into a single, coordinated process. This process may include worksheets, forms, computer databases and other tools to support standardization and organization of hazard information. Based on this process, the Transportation Authority shall establish a Hazard Tracking Log that reflects the consolidation of information in the hazard management process by listing all identified hazards. The Hazard Tracking Log may be organized by assigned number, type of hazard, source from which it was identified, or element of the Transportation Authority's operation affected by the hazard (*i.e.*, facilities, vehicles, track and signal, communications, tunnel ventilation, personnel training and procedures, *etc.*). The Transportation Authority shall submit the Hazard Tracking Log as part of its SSPP for review and approval. Upon approval, the Hazard Tracking Log must be submitted on a monthly basis to the Transportation Division Director electronically for review.

(3) Hazard Categorization:

(a) Hazard Severity is a subjective measure of a credible mishap resulting from personnel error, environmental conditions, design inadequacies, and/or procedural deficiencies for system, subsystem, or component failure or malfunction, categorized as follows:

1. Catastrophic. Death or system loss.
2. Critical. Severe injury, severe occupational illness, or major system damage.
3. Marginal. Minor injury, minor occupational illness, or minor system damage.
4. Negligible. Less than minor injury, minor occupational illness, or minor system damage.

(b) Hazard Probability is the probability that a specific hazard will occur during the planned life expectancy of the system element, subsystem, or component. It can be described subjectively in potential occurrences per unit, events, population, items, or activity as follows:

1. Frequent. Likely to occur frequently to individuals, or continuously experienced in equipment.
2. Probable. Likely to occur several times in the life of an item.
3. Occasional. Likely to occur sometime in the life of an item.
4. Remote. Unlikely but possible to occur in the life of an item.
5. Improbable. Unlikely to occur.

(c) A hazard matrix is an indicator of the correlation among the four categories of severity of conditions that may endanger human life or property and the five patterns of frequency of the occurrence of the hazardous condition. The matrix classifies the degree of risk, and also provides a guideline for reporting of an occurrence and subsequent action for hazard resolution.

Hazard Matrix				
	Catastrophic	Critical	Marginal	Negligible
Frequent	Unacceptable	Unacceptable	Unacceptable	Acceptable**
Probable	Unacceptable	Unacceptable	Undesirable	Acceptable**
Occasional	Unacceptable	Undesirable	Undesirable	Acceptable
Remote	Undesirable	Undesirable	Acceptable**	Acceptable
Improbable	Acceptable**	Acceptable**	Acceptable**	Acceptable

Acceptable** means acceptable based on prior management decision.

(4) Hazard Notification.

(a) Based on the Hazard Matrix, the Transportation Authority shall notify the Department of any

1. unacceptable condition within two to four hours of the occurrence and in writing via email or fax by close of business the next business day.
2. undesirable condition within 24 to 48 hours of the occurrence.

(b) The Transportation Authority shall also notify the Department within two to four hours of any occurrence categorized by one of the following codes (as listed in the Transportation Authority's Manual of Operations):

1. Code 1- Fire or smoke.
2. Code 2- Person under a train.
3. Code 3- Train or car derailed.
4. Code 6- Unusual occurrence.
5. Code 7- Bomb threat.
6. Other codes as may be determined by the Department.

(c) After initial notification, the Department may require the Transportation Authority to conduct further activities in order to provide more detailed information, including conducting an investigation pursuant to 220 CMR 151.09(3) through (9).

151.07: Corrective Action Plans.

(1) The Transportation Authority must develop a written corrective action plan ("CAP") reported on D.T.E. Form B to address hazardous conditions identified through:

(a) Investigations, in which identified causal and contributing factors are determined by the Transportation Authority or the Department as requiring corrective actions;

(b) Safety and security reviews performed by the Department;

(c) Internal safety and security audits performed by the Transportation Authority; or

(d) The Hazard Management Process.

(2) Each CAP should identify the:

(a) Occurrence or condition requiring corrective action.

(b) Action necessary to eliminate or control occurrence or condition.

(c) Schedule for implementation.

(d) Individual or department responsible for implementation.

(3) The Transportation Authority shall submit the CAP to the Department for review and formal approval within 60 days of the event triggering the CAP. Upon request, the Transportation Authority must allow the Department to review the data used in the preparation of the CAP.

(4) If the Transportation Authority does not complete a CAP within 60 days of the event triggering the CAP, it shall submit a written request for an extension outlining the tasks to be completed and a time line for completion.

(5) The Transportation Authority must provide the Department with written:

(a) Verification that each corrective action described in the CAP has been implemented, or that a proposed alternate action(s) has been implemented subject to Department review and approval;

(b) Status reports as requested by the Department, describing the status of each corrective action not completely implemented pursuant to a CAP's implementation schedule; and

(c) Reports to the Department, using the Department's CAP identification number, when the requirements of an approved CAP have been satisfied.

(6) Upon receipt of the Transportation Authority's CAP, the Department has ten days in which to review and approve the CAP in writing. If the Department rejects the CAP, the Transportation Authority has 20 days from notice of rejection to submit a revised CAP to the Department for approval. The Department may grant an extension beyond the 20 days for good cause shown.

(7) If the Department is unable to approve a proposed CAP or to resolve a dispute with the Transportation Authority resulting from the development or enforcement of a CAP, the Department must either:

(a) Report the areas of disagreement in writing to, and negotiate with, the Transportation Authority until the dispute is resolved;

(b) Develop, and submit to the Transportation Authority for implementation, its own written CAP or enforcement procedures according to the requirements of 220 CMR 151.07; or

(c) Issue any order that it deems necessary.

(8) In the event the National Transportation Safety Board ("NTSB") conducts an accident investigation, the Department and the Transportation Authority shall review the NTSB findings and recommendations to determine whether a CAP should be developed by the Transportation Authority. If a CAP is required either by the NTSB or the Department, the Transportation Authority shall develop it.

(9) The Department will monitor and track the implementation of each approved corrective action plan through completion. Such monitoring will occur both monthly and quarterly as part of the scheduled meetings between the Department and the Transportation Authority pursuant to 220 CMR 151.01(5).

(10) The Department may withhold from public disclosure CAPS prepared or adopted by the Department whose release is likely to jeopardize public safety as contemplated in G. L. c. 4, § 7, Twenty-sixth(n).

151.08: Department Notification.

(1) When notice to the Department is required herein, the Transportation Authority shall notify the Department by first contacting the Department Inspector assigned to the Transportation Authority via telephone or fax, email, beeper or pager number. Alternatively, the Transportation Authority shall notify the Assistant Director of the Transportation Division. The Transportation Authority shall maintain current contact information for these primary and alternative points-of-contact.

(2) Written notice to the Department of a hazard, accident or similar event, to the extent possible under the circumstances, shall include, but not be limited to:

(a) Name and title of person reporting.
(b) Event type.
(c) Location, time, and date of event.
(d) Fatalities.
(e) Injuries.
(f) Rail transit vehicle(s) involved (type, number).
(g) Other vehicle(s) involved (type, number).
(h) Property damage estimate.
(i) NTSB reportable.
(j) FRA reportable.
(k) Rail transit agency primary person (*i.e.*, Chief Investigator) conducting the investigation (name, title, phone and fax numbers, email address).
(l) Description of the event.
(m) Immediately implemented and/or planned corrective actions.
(n) Name and telephone number of person from whom additional information may be obtained.
(o) Method and time of notice to the Department.

151.09: Accident Notification and Investigation.

(1) The Transportation Authority shall notify the Department within two hours of, and in writing by the close of business on the next business day following, any incident involving a rail transit vehicle or taking place on rail transit-controlled property where one or more of the following occur ("Accident Notification"):

(a) Fatality at the scene or where an individual is confirmed dead within 30 days of rail transit-related incident.
(b) Injuries requiring immediate medical attention away from the scene for one or more individuals.
(c) Property damage to rail or non-rail transit vehicles, rail transit-controlled property or other rail transit facilities, and/or non-rail transit property that equals or exceeds $25,000.
(d) Evacuation for life safety reasons.
(e) Main-line derailment.
(f) Collision with an individual on a rail right of way.
(g) Collision between a rail transit vehicle and second rail transit vehicle or a rail transit non-revenue vehicle.
(h) Collision at grade crossing.

(2) The Transportation Authority shall investigate any incident requiring Accident Notification to the Department. The Department will provide, and the Transportation Authority will use D.T.E. Checklist Form A for this investigation.

(3) The investigation shall include the following:
- (a) On-site inspection.
- (b) Visual examination and measurements.
- (c) Examination by the following methods and/or tests:
  1. radiographic
  2. ultrasonic
  3. magnetic particle
  4. liquid dye testing.
- (d) Functional testing of the following as necessary:
  1. vehicle
  2. track
  3. traction power
  4. signals
  5. communication equipment.
- (e) Interviews with witnesses.
- (f) Review of maintenance records and procedures.
- (g) Review of employee training and certification.
- (h) Photographs.
- (i) Police and coroner reports.
- (j) Review of alcohol and drug test results.
- (k) Review of hours of service records.
- (l) Review of operating rules and procedures.
- (m) Other related matters.

(4) The Transportation Authority shall prepare a preliminary written report of its investigation within 30 days of the event triggering the Accident Notification. The Department may request a review of data used by the Transportation Authority in the preparation of the report. The preliminary report shall identify:
- (a) The investigation activities.
- (b) The investigation findings.
- (c) The probable cause of the incident.
- (d) Any contributory cause of the incident.
- (e) A draft CAP.
- (f) Recommendations to prevent recurrence.
- (g) A schedule for prevention or mitigation of recurrence.

(h) Other related matters.

(5) The Transportation Authority shall submit to the Department a final report of its investigation within 60 days of the event triggering the Accident Notification.

(6) In the event that the Transportation Authority does not complete a final report within 60 days of the event triggering the Accident Notification, it shall submit written status reports as requested by the Department until the final report is completed.

(7) Upon receipt of the Transportation Authority's final report, the Department has ten days in which to review and approve the report in writing. If the Department rejects the report, the Transportation Authority has 20 days from notice of rejection to submit a revised final report to the Department for approval. The Department may grant an extension beyond the 20 days for good cause shown.

(8) If the Department is unable to approve a final report, or to resolve a dispute with the Transportation Authority resulting from the development of a final report, the Department must either:

(a) Report the areas of disagreement in writing to, and negotiate with, the Transportation Authority until the dispute is resolved; or

(b) Conduct its own investigation according to the requirements of 220 CMR 151.09, and submit the final report to the Transportation Authority for implementation; or

(c) Issue any order that it deems necessary.

(9) The Department may withhold from public disclosure investigation reports prepared or adopted by the Department whose release is likely to jeopardize public safety as contemplated in G. L. c. 4, § 7, Twenty-sixth(n).

151.10: Management and Oversight Process.

(1) Review and Approval. The Department shall review and approve initial and revised SSPPs or SSPs and annual reports on the internal safety and security audit process.

(a) The Department will review only final documents bearing the required signatures of the Transportation Authority's management. After approval, the Department will issue a formal letter of approval to the Transportation Authority, which will include the checklist used to conduct the review.

(b) Upon receipt of the final document from the Transportation Authority, the Department has ten days in which to review and approve it in writing. If the Department rejects the document, the Transportation Authority has 20 days from notice of rejection to submit a revised document to the Department for approval. The Department may grant an extension beyond the 20 days for good cause shown.

(c) If the Department is unable to approve a final document, or to resolve a dispute with the Transportation Authority resulting from the development of the document, the Department must either:

1. Report the areas of disagreement in writing to, and negotiate with, the Transportation Authority until the dispute is resolved;
2. Develop its own document according to the requirements of the relevant section, and submit it to the Transportation Authority for implementation; or
3. Issue any order that it deems necessary.

(2) Triennial Review. The Department shall conduct an on-site review of the Transportation Authority's implementation of its SSPP and SSP at least once every three years.

(a) Following this review, the Department shall prepare and issue a report containing findings and recommendations, including an analysis of the effectiveness of the SSPP or SSP and a determination of whether either should be updated.

(b) In conducting on-site reviews, the Department may request additional information, clarifications or revisions from the Transportation Authority. The Department may also perform inspections, investigations and reviews of the operation and maintenance of the Transportation Authority's rail fixed guideway system to determine whether its safety and/or security procedures comply with the SSPP and/or SSP. In the event the Transportation Authority objects to such a request, the Department and the Transportation Authority shall agree to an appropriate course of action to address outstanding issues within 15 days of the objection.

(3) Reporting Requirements to FTA.

(a) Initial Submission. The Department will make its initial submission to the FTA by May 1, 2006, which includes:

1. The Department's program standard and referenced procedures; and

2. The Department's certification that the Transportation Authority's SSPP and SSP have been developed, reviewed and approved.

(b) Annual Submission. Before March 15th of each year, the Department must submit the following to FTA:

1. A publicly available annual report summarizing its oversight activities for the preceding twelve months, including a description of the causal factors of investigated accidents, status of corrective actions, updates and modifications to the Transportation Authority's program documentation, and the level of effort used by the Department to carry out its oversight activities.

2. A report documenting and tracking findings from the Department's three-year safety review activities, and whether a three-year safety review has been completed since the last annual report was submitted.

3. Program standard and supporting procedures that have changed during the preceding year.

4. Certification that the Department has reviewed and approved any changes or modifications to the Transportation Authority's SSPP or SSP.

(c) Annual Certification. In conjunction with its Annual Submission, the Department must certify to the FTA that it has complied with the requirements of Part 659.

(d) Periodic Submission. The Department must make periodic submissions to the FTA upon its request.

(e) The Department must submit all filings to the FTA electronically using a reporting system specified by FTA.

(f) The Department must maintain a signed copy of each annual certification to FTA, subject to audit by FTA.

(4) Conflict of Interest. In its oversight of the Transportation Authority's SSPP and SSP, the Department shall prohibit a party or entity from providing services to both the Department and the Transportation Authority concerning the SSPP and/or SSP so as to avoid conflicts of interest.

151.11: Track Inspection.

(1) Inspections.

(a) All inspections must be made according to the schedule set out in 220 CMR 151.11(2), by a person designated under 220 CMR 151.11(4).

(b) Each inspection must be made on foot or by riding over the track in a vehicle at a speed that allows the person making the inspection to visually inspect the track structure for compliance with 220 CMR 151.00. However, mechanical, electrical and other track inspection devices may be used to supplement visual inspection. If a vehicle is used for visual inspection, the speed of the vehicle may not be more than five miles per hour when passing over track crossings, highway crossings or turnouts.

(c) If the person making the inspection finds a deviation from the inspection requirements the inspector shall immediately initiate remedial action.

(2) Schedule for Track Inspection.

(a) Each track inspection must be made according to the following schedule:

TYPE OF TRACK	REQUIRED FREQUENCY
Light Rail Passenger-service Track	Three times per week with at least one calendar day interval between inspections
Light Rail Yard and Storage Track Heavy Rail Yard and Storage Track	Weekly with at least three calendar days interval between inspections, or before use, if track is used less than once a week.
Heavy Rail Passenger-service Track	Twice weekly with at least one calendar day interval between inspections.

(b) In addition to 220 CMR 151.11(2)(a), any track undergoing or awaiting repair that has a speed restriction placed on it shall be inspected at a frequency that will insure safe operations at all times.

(c) Each switch, turnout, and track crossing must be inspected on foot at least weekly. In the case of track that is used less than once a week, each switch, turnout and track crossing must be inspected before it is used.

(d) In the event of fire, flood, severe storm, or other occurrence which might have damaged track structure, a special inspection must be made of the track involved as soon as possible after the occurrence.

(e) The Department of Telecommunications and Energy may require inspections at more frequent intervals in areas of dense traffic, high operating speed or questionable physical conditions.

(3) Schedule for Rail Inspection.

(a) In addition to 220 CMR 151.11(2)(a), at least once a year a continuous search for internal rail defects must be made of all rail in all passenger-service track.

(b) Inspection equipment, including ultrasonic rail testing equipment, must be capable of detecting defects between joint bars, in the area enclosed by joint bars.

(c) Each defective rail must be marked with highly visible marking on both sides of the web and base.

(4) Personnel.

(a) The Transportation Authority shall designate qualified persons to supervise restorations and renewals of track under traffic conditions. Each person designated must have:

1. Experience/Education
   a. One year of supervisory experience in railroad track maintenance, or
   b. A combination of supervisory experience in track maintenance and training from a course in track maintenance, or
   c. A college level educational program related to track maintenance.
2. Ability to:
   a. Understand inspection requirements
   b. Detect deviations from the inspection requirements
   c. Prescribe appropriate remedial action to correct or safely compensate for deviations
   d. Procure written authorization from the Transportation Authority to prescribe remedial actions to correct or safely compensate for any deviations from the inspection requirements.

(b) The Transportation Authority shall designate qualified persons to inspect track for defects. Each person designated must have:

1. Experience/Education
   a. At least one year of experience in track inspection, or
   b. A combination of experience in track inspection and in-house training from a course in track inspection.
2. Ability to:
   a. Understand inspection requirements
   b. Detect deviations from the inspection requirements
   c. Prescribe appropriate remedial action to correct or safely

compensate for deviations

d. Procure written authorization from the Transportation Authority to prescribe remedial actions to correct or safely compensate for any deviations from the inspection requirements pending review by a qualified person designated under 220 CMR 151.11(4)(a).

(c) Personnel Records of designees under 220 CMR151.11(4)(a) and (b) shall show:

1. The basis for each designation
2. Records must be kept available for inspection or copying by the Department of Telecommunications and Energy.

(5) Records/Reports.

(a) The Transportation Authority shall keep a record of each track and rail inspection required to be performed; and such record shall identify the designee who performed the inspection.

(b) The Transportation Authority shall designate a location where each original record shall be maintained for at least one year after the track inspection covered by the track inspection record. The Transportation Authority shall retain a rail inspection record for at least two years after the rail inspection and for one additional year after remedial action is taken.

(c) Track Inspection Records and Rail Inspection Records shall be:

1. Prepared on the day the inspection is made
2. Signed by the person making the inspection.

(d) Inspection Records must specify:

1. The track or rail inspected
2. The date of inspection
3. Location of any deviation
4. Nature of any deviation from the established track standards
5. Remedial action taken by the person making the inspection.

(e) Records must be kept available for inspection or copying by the Department of Telecommunications and Energy.

151.12: Track Maintenance.

(1) Unless otherwise structurally supported, all track must be supported by ballast material which will:

(a) Transmit and distribute the load of the track and railroad rolling equipment to the subgrade

(b) Restrain the track laterally, longitudinally, and vertically under dynamic loads imposed by railroad rolling equipment and thermal stress exerted by the rails

(c) Provide adequate drainage for the track

(d) Maintain proper track crosslevel, surface, and alignment.

(2) Crossties shall be made of a material to which rail can be securely fastened.

(a) Each 39-foot segment of track shall have a sufficient number of crossties which in combination provide effective support that will maintain gage, surface, and alignment.

(b) The minimum number and type of crossties specified in 220 CMR 151.12(3) effectively distributed to support the entire segment; and at least one crosstie of the type specified in 220 CMR 151.12(3) that is located at a joint location.

(3) Each 39-foot segment of track shall have the minimum number and type of crossties as indicated in the following table:

MAXIMUM TRACK SPEED	MINIMUM NUMBER OF TIES	
	Tangent Track*	Curved Track**
15 miles per hour	5	6
25 miles per hour	8	9
60 miles per hour	8	10

* Track that is straight or has a radius curve greater than 1000 feet.
** Track having a radius curve measuring less than 1000 feet.

Crossties required shall be of the type which are not:

(a) Broken through

(b) Split or otherwise impaired to the extent the crossties will allow the ballast to work through, or will not hold spikes or rail fasteners

(c) So deteriorated that the tie plate or base of rail can move laterally two inches relative to the crossties, or

(d) Cut by the tie plate (or rail base) through more than 15% (nominally

1⅛") of a tie's thickness.

(e) For track constructed without crossties, such as slab track, track connected directly to bridge structural components and track over servicing pits, the track structure must meet the requirements of 220 CMR 151.12(3) in regards to gage restraint, rail support, surface and alignment.

(4) Gage is measured between the heads of the rails at right-angles to the rails in a plane ⅝ of an inch below the top of the rail head.

(5) Gage must be within the limits prescribed in the following table:

MAXIMUM TRACK SPEED	MINIMUM TRACK GAGE	MAXIMUM TRACK GAGE
10 miles per hour	56"	58"
60 miles per hour	56"	57¾ "

(6) Each rail joint, insulated joint, and compromise joint must be of the proper design and dimensions for the rail on which it is applied.

(7) If a joint bar is cracked, broken, or because of wear allows excessive vertical movement of either rail when all the bolts are tight, it must be replaced.

(8) If a joint bar is cracked or broken between the middle two bolt holes it must be replaced.

(9) In the case of conventional jointed rail in passenger-service track, each rail must be bolted with at least two bolts at each joint. Yard and storage track joints must be bolted with at least one bolt on each rail.

(10) In the case of continuous welded rail (CWR) track, each rail must be bolted with at least two bolts at each joint used to connect CWR strings or to connect CWR to conventional rail.

(11) Each joint bar must be held in position by track bolts tightened to allow the joint bar to firmly support the abutting rail ends and to allow longitudinal movement of the rail in the joint to accommodate expansion and contraction due to temperature variations.

(12) When any condition in 220 CMR 151.12(9) and (10) is not satisfied, an operating restriction must be put in place immediately until the condition is satisfied.

The Transportation Authority shall notify the Director of the Transportation Division of the Department of Telecommunications and Energy of the imposition or removal of an operating restriction within 48 hours of said action.

REGULATORY AUTHORITY

220 CMR 151.00: 49 U.S.C. 5330, 49 C.F.R. 659, M.G.L. c. 161A, § 3(i).